

PLEASE AMEND THE CLAIMS AS INDICATED BELOW:

1-3. (Cancelled)

4. (New) A device for controlling delivery of sheets from a stack to a machine for further processing, the stack of sheets having a leading face and a trailing face relative to the machine, the device comprising:

a lift operative to raise the stack of sheets;

an electric motor operable only in a continuous mode at a variable speed connected to operate the lift;

a motor controller for the motor;

a vertically movable sheet feeder including a gripping mechanism operative to grip the sheet at the top of the stack for delivery to the machine;

a drive mechanism operative to raise and lower the sheet feeder;

a first detector located near the uppermost position which can be assumed by the top of the stack, and in an operative relationship to the leading face of the stack,

the first detector being operative to generate an output signal representative of the vertical position of the top of the stack; and

a computer operative to control the drive mechanism for the sheet feeder; and

responsive to the output signal from the first detector, a signal representing the rate at which sheets are fed to the machine by the sheet feeder, and a signal representing the thickness of the sheets to generate a signal for the motor controller representing the variable motor speed.

5. (New) The device of Claim 4, wherein the first detector comprises a linear camera disposed along the stack for sensing the top level of the stack.

6. (New) A device according to claim 4, wherein the motor controller includes:
a variable frequency drive for the motor, and
a speed control feedback circuit comprised of:

a sensor that provides an output signal representative of the actual speed of the motor; and
a comparison circuit that provides a control input for the variable frequency drive
representative of the difference between the set speed and the actual motor speed.

7. (New) A device according to claim 4, wherein the computer is operative in real time to generate the variable motor speed signal on the basis of the difference between actual vertical position of the top of the stack as measured by the first detector and a reference vertical position for the top of the stack determined from the rate at which sheets are fed to the machine by the sheet feeder, and a preset value representing the thickness of the sheets.

8. (New) A device according to claim 4, wherein the first detector is located substantially equidistantly from side faces of the stack which connect the leading and trailing faces.

9. (New) A device according to claim 4, wherein
the sheet feeder includes a second detector located near the uppermost position which can be assumed by the top of the stack, and in operative relationship to the trailing face of the stack, the second detector is operative to generate an second output signal representative of the vertical position of the top of the stack; and
the computer is responsive to the second output signal to generate an output for controlling the drive mechanism for the sheet feeder.

10 (New) A device according to claim 9, wherein the second detector is located substantially equidistantly from side faces of the stack which connect the leading and trailing faces.

11. (New) A device according to claim 10, wherein the first detector is located substantially equidistantly from the side faces of the stack.

12. (New) The device of Claim 4, further comprising:

an auxiliary supply device operable for holding the stack when the lift does not hold the stack; and
a second motor operative to raise and lower the auxiliary supply device,
the computer being operative to utilize the same programming that controls the first electric motor
for the lift, to also control the second motor, and thereby to control the rate at which the
auxiliary supply device raises the stack independently of the lift.